leptic paroxysms. In other words, epilepsy is not solely an autointoxication although the increase of the toxic power of the urine shows a possibility that increased formation of toxic matter in the body may be a contributory factor in the production of the attacks.

CLARK.

UEBER CEREBRALE BLASENSTÖRUNGEN (On Cerebral Bladder Disturbances). Ernst V. Czyhlarz and Otto Marburg (Jahrbücher für Psychiatrie und Neurologie, 20 Vol. No. 1, p. 134).

The existence of true cerebral bladder symptoms has been a question of much debate, with the weight of opinion inclining towards its non-existence. This paper aims to discuss the question in a more precise way by means of microscopic study and by the critical examination of the cases reported in literature. Under cerebral bladder symptoms is understood all those symptoms referable to the bladder which occur in the course of cerebral affections without psychical disturbances or involvement of consciousness, if the bladder apparatus in its nervous, muscular, and glandular functions is perfectly intact. To be excluded are all those affections of the brain which have no strictly limited localization, as commotio cerebri, progressive paralysis, senile dementia, and those in which the shock of the attack, as in apoplexy or in fever, may produce disturbances of themselves. To be included under the latter is encephalitis. In such cases the assumption of Frankl-Hochwart and Zuckerkandl, that we have to do with an irritation of the intra-cerebral inhibitory paths, is the most reasonable explanation. According to the present state of our knowledge, the cortical bladder center is in the motor zone, at the point of conjunction of the arm and leg centers, somewhere in the region where, according to Obersteiner, the center for movements of the thigh is located. The clinical manifestations of disturbances located here is the impossibility of voluntary urination, that is retention, which, in unilateral focal lesions, is temporary. In regard to the bilateral foci, no opinion can be expressed. The subcortical center lies in the corpus striatum and has to do with automatic movements of the bladder, resulting from conscious, sensory stimulation. A third center reacts to effective stimuli and plays an important rôle in cases where the effective states are most freauent, as in children or psychopathic women. This center is situated, probably, in the thalamus. The influence of the cerebellum in central bladder affections is stated in this way: cerebellar affections have a tendency to change retention, caused by pryramidal tract lesion, to an incontinence, and cause the symptoms relating to the bladder to become more pronounced. The cerebro-spinal motor paths connect these centers with the conus, the pyramidal tract plays an important rôle in this connection. The skepticism in regard to the existence of central bladder symptoms is unjustified. Its existence may be regarded as proven, when more cases have been studied. The bladder symptoms due to cerebral lesions may be an aid in localisation where the seat of the lesion is doubtful. In support of the above conclusions, the authors present cases from literature, as well as some of their own.

SCHWAB.

ZUR SYMPTOMATOLOGIE DER PARALYSIS AGITANS (The Symptomatology of Paralysis Agitans). D. Frank. (Monatsschrift für Psychitrie und Neurologie, September, 1900.)

The author reports on several cases of paralysis agitans observed in Oppenheim's Clinic, in which special symptoms were present. In several cases the so-called "false foot-tremor" was seen. This is brought out by placing the foot in dorsal flexion, and holding it for several seconds. Typical tremor ensues which differs from the ordinary foot-clonus in that the movements are slower, and less rhythmical, and are seemingly produced by the extensor muscles. The symptom is of value in cases in which the tremor does not appear early, and in cases in which the differentiation between paralysis agitans and senile tremor is difficult. The writer also calls attention to the occurrence of associated movements in cases of shaking palsy. Two cases of unilateral disease are reported, in which active movements of the muscles of the affected side were accompanied by similar movements of the unaffected, although active movements of the latter were followed by no similar state in the diseased areas. In one of these cases the author notes that the side of the face corresponding with the affected half of the body was involved in the rigidity and tremor of the disease. Another case is reported in which there were marked disturbances of sensibility, including diminution of both painful and temperature senses.

The paper concludes with the outline of two cases in which the differential diagnosis between paralysis agitans and senile tremor of arterio-sclerosis was in doubt, and the symptoms pointed again to a strong inter-relation in the pathology of these two diseases. One patient presented the typical manifestations of paralysis agitans, and in addition, headache, vertigo, bulbar manifestations and exaggerated knee-jerk. The second case presented only a superficial resemblance to paralysis agitans, with the exception of a tremor. There was predominance of symptoms particularly suggestive of arteriosclerosis, as paresis of the extremities, spasms, and increase of the patellar tendon reflex and true ankle-clonus, together with mental defects, dysarthria and dysphagia. Cases have been reported in which these manifestations of senile degeneration have faded away, and have been followed by manifestations difficult to distinguish from those of paralysis agitans. Such a variety of symptoms, which point unmistakably to involvement of the cerebral hemispheres, bears strong evidence of an association of this disease with vascular degenerations. JELLIFFE.

CONTRIBUTION A L'ÉTUDE DE L'ANATOMIE PATHOLOGIQUE DE L'HEMIANOPSIE D'ORIGINE INTRA-CÉRÉBRALE (Contribution to the Pathological Anatomy of Hemianopsia of Intra-cerebral Origin). Joukowsky (Nouvelle Iconographie de la Salpêtrière, No. 1, 14th Year, Jan.-Feby., 1901, p. 1).

A study of two cases of hemianopsia caused by the destruction of the cortical visual center. Case I. An old man with left homonymous hemianopsia. He had no paralysis nor sensory aphasia. Autopsy showed a softening in the right hemisphere in the region supplied by the posterior cerebral artery, which had destroyed the region of the calcarine fissure and the neighboring part of the occipital pole. Small softenings were present in the convultions O1 and O2. Histological study showed that the lesion was located in the calcarine fissure, destroying chiefly the lingual and fusiform lobes, and that this lesion penetrated in the adjacent white substance to the internal wall of the posterior horn. This lesion was followed by a sclerosis of the radiate fibers of Gratiolet, by sclerosis of the inferior portion of the retro-lenticular internal capsule, and by that of the